

CLAIMS:

1. A feedback control loop for controlling parameters of a signal comprised in a block of data stored in a N-dimensional data block on a record carrier where the feedback loop comprises an input for receiving an information from the record carrier and error signal derivation means for deriving an error signal from the information, characterized in that the feedback loop is arranged to determine an error signal from a first area of the N-dimensional data block where the first area is that area where the error signal can be determined within the shortest period of time.
2. A feedback control loop as claimed in claim 1, characterized in that the control loop is a high bandwidth control loop.
3. A feedback control loop as claimed in claim 1 or 2, characterized in that the first area is a guard band area corresponding to the N-dimensional data block
4. A feedback control loop as claimed in claim 1, 2 or 3, characterized in that the feedback control loop is arranged for controlling parameters of a signal from a second area based on the error signal derived from the first area.
5. A feedback control loop as claimed in claim 4, characterized that a the feedback control loop is additionally arranged for controlling parameters of a signal from the second area based on an error signal derived from the second area.
6. A feedback control loop as claimed in claim 4 or 5, characterized in that the second area is the N-dimensional data block.
7. A feedback control loop as claimed in claim 6,

characterized in that the parameters of the signal from the second area are uniformly controlled using the error signal.

8. A feedback control loop as claimed in claim 4 or 5,
5 characterized in that feedback control loop is arranged for controlling parameters of a signal from a second area based on the error signal derived from the first area and a further error signal derived from a third area.
9. A feedback control loop as claimed in claim 8,
10 characterized in that the second area is the N-dimensional data block.
10. A feedback control loop as claimed in claim 8,
characterized in that the parameters of the signal from the second area are uniformly controlled using an average of the error signal and the further error signal.
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11. A feedback control loop as claimed in claim 8,
characterized in that the parameters of the signal from the second area are controlled using an interpolated error signal derived by interpolating between the error signal and the further error signal based on a position of the second area relative to the first area and the third area.
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12. A feedback control loop as claimed in one of the previous claims,
characterized in that the feedback control loop comprises a detector with an input for receiving the information from the input and an output for providing the error signal to the feedback control loop.
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13. A feedback control loop as claimed in claim 12,
characterized in that the feedback control loop is a decision directed feedback control loop.
14. A feedback control loop as claimed in claim 12,
30 characterized in that a further control loop, supplementing the control loop, is arranged to determine an error signal from a fourth area of the N-dimensional data block where the fourth area is different from the first area.

15. A method for controlling parameters in a feedback control loop of a signal comprised in a block of data stored in a N-dimensional data block on a record carrier comprising the steps of

- receiving an information from the record carrier
- 5 - deriving an error signal from the information
- determining an error signal from a first area of the N-dimensional data block where the first area is that area where the error signal can be determined within the shortest period of time
- controlling parameters based on the determined error signal

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16. A method for controlling parameters in a feedback control loop as claimed in claim 15,

characterized in that the step of deriving an error signal from the information

comprises the step of selecting the information from a guard band area corresponding to the

15 N-dimensional data block

17. A method for controlling parameters in a feedback control loop as claimed in claim 14 or 16,

characterized in that the step of controlling parameters based on the determined error signal

20 comprises controlling parameters of a signal from a second area based on the error signal derived from the first area.

18. A method for controlling parameters in a feedback control loop as claimed in claim 17,

25 characterized in that the second area is the N-dimensional data block.

19. A method for controlling parameters in a feedback control loop as claimed in claim 18,

characterized in that the parameters of the signal from the second area are uniformly

30 controlled using the error signal.

20. A method for controlling parameters in a feedback control loop as claimed in claim 16,

characterized in that the step of controlling parameters based on the determined error signal comprises controlling parameters of a signal from a second area based on the error signal derived from the first area and a further error signal derived from a third area.

5 21. A method for controlling parameters in a feedback control loop as claimed in claim 20,
characterized in that the second area is the N-dimensional data block.

10 22. A method for controlling parameters in a feedback control loop as claimed in claim 20,
characterized in that the parameters of the signal from the second area are uniformly controlled using an average of the error signal and the further error signal.

15 23. A method for controlling parameters in a feedback control loop as claimed in claim 19,
characterized in that the step of controlling the parameters of the signal from the second area comprises the steps of:
- interpolating between the error signal and the further error signal based on a
position of the second area relative to the first area and the third area to derive an interpolated
20 error signal.

24. A method for controlling parameters in a feedback control loop as claimed in one of the previous claims,
characterized in that the step of deriving an error signal from the information comprises the
25 step of detecting symbols from the information and providing the error signal to the feedback control loop.

25. A method for controlling parameters in a feedback control loop as claimed in claim 23,
30 characterized in that the feedback control loop is a decision directed feedback control loop.

26. Apparatus for reading an optical record carrier comprising a feedback control loop as claimed in any one of the claims 1 to 14